

TS 7142013-0
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25 April 1960

MEMORANDUM FOR THE DIRECTOR

SUBJECT: HIE 11-5-60: SOVIET CAPABILITIES IN GUIDED
MISSILES AND SPACE VEHICLES

UNCLASSIFIED

1. This estimate is part of the series approved by the
OSIB some time ago for completion this spring and summer, on
a schedule which is intended to complete our annual Soviet
estimate in the fall rather than at the turn of the year.
It is designed as a brief and summary updating of HIE 11-5-59,
which was completed last November. While it completely super-
sedes the Summary and Conclusions of HIE 11-5-59, as well as
the tables on Soviet missile and space programs, the reader
would need the Discussion section of HIE 11-5-59 if he desired
detailed background information.

2. The present draft differs from the OMAIC contribution
in certain respects:

a. In format, the draft presents a more brief, summary
treatment than the OMAIC draft, because OME found this the
most direct way of reviewing the main conclusions of
HIE 11-5-59 and of incorporating new evidence and revisions.

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b. Some missile systems, for example, the ground-launched cruise-type system (paragraph 16) and the Polaris-type system (paragraph 27), are described in terms which indicate the current state of our evidence and the date when we believe the Soviets could have them operational, without forcing a decision as to whether they will probably or possibly become operational.

c. We have presented material on ICBM reliability factors (paragraph 10-12) as working assumptions only, giving spreads of percentages consistent with the inadequacy of our data and with the various circumstances under which ICBMs might be employed. In light of the extreme uncertainties and potential misuse of reliability figures, we have not reproduced a new table and have downgraded the 11-5-59 table to a set of "working assumptions."

d. Recognizing that R & D, production, and deployment are all vital to the ICBM problem, we have included a brief statement at TOP SECRET level (paragraphs 4 and 5) on production and deployment, even though the 11-5 estimate is primarily concerned with weapon characteristics.

BASE CHANGES

3. The following major changes have been made to the estimates contained in NIE 11-1-59:

a. In ICBM characteristics, we express greater confidence that the vehicle is of the one and one half staged (Atlas) type, and that it has an ablative nosecone giving a range of 6,500 n.m. with 6,000 pound warhead (paragraph 6). We have added an estimate of ICBM accuracy for 1963-1970 (paragraph 9), and have noted the probability of a follow-on system (paragraph 13).

b. We have included an estimate (paragraph 16) and a new Annex C on ground-launched cruise-type vehicles.

c. We have estimated that the Soviets will probably improve their present surface-to-air missile system (SA-2) rather than developing an entirely new system for use against aircraft and cruise-type vehicles, at least in the near term (paragraph 20).

d. We have taken into account new evidence on follow-on air-to-surface missiles for antiship use (paragraph 25), submarine-launched ballistic missiles (paragraph 26), and new types of cruise missiles for use by surface ships (paragraphs 26 and 29).

SECRET

Paragraphs 7 and 9, and Annex B, page 25:

Army dissents to RCH accuracy, as in the Memo to Holders of HIE 11-5-59 dated January 1960. Since there is no new evidence, we recommend that a footnote be invited.

Paragraph 12:

Air Force dissents to RCH reliability. Figures in the text are generalized from a review by a GMAC working group, and we recommend that they be accepted.

Annex B, page 27:

Navy dissents to detailed characteristics of an air-to-surface missile, on which we recommend the text as representing the majority view of GMAC.

FOR THE BOARD OF NATIONAL ESTIMATES:

SHERMAN KENT
Chairman